



August 14, 2012

**Testimony Submitted to the Texas Senate Business and Commerce Committee
Comments of Jennifer Bergland, Director of Government Relations**

Mr. Chairman and Members of the Committee,

I attended elementary school in Abilene, Texas in the 1960s. During that time, it was very rare for a school to have air conditioners that cooled the classrooms. Instead, most rooms had a box fan that tried to move around enough air to keep the temperature tolerable. It was just the way it was. Air conditioning was considered a luxury. Somewhere between then and now, having air-conditioned classrooms in Texas is now considered essential. We are quickly moving into an era when having broadband access in Texas classrooms is no longer a luxury, but rather a core-enabling infrastructure that is necessary to provide a 21st century teaching and learning environment.

Rationale:

The convergence of several factors has dramatically increased the demand for broadband connectivity in Texas schools. The increased use of online services in the classroom is taxing many districts' networks. Schools are using online networks, such as Project Share, to enable more collaboration among educators and students. In addition, teachers are using Web 2.0 applications that allow their students to not only be consumers of information but also creators. Video conferencing is much more affordable now with applications such as Skype that will allow teachers and students to communicate with authors and experts that bring relevance and authenticity to the classroom. Students are using mobile apps on tablets or smartphones to access educational content that is often connected to a server outside the district's network. Students are also taking advantage of online courses that they may access from school or home. And finally, now that districts have more flexibility in purchasing instructional materials, they are beginning to purchase digital content that provide a rich media experience that includes video, sound, web-enabled links, online assessment, and collaboration with their peers.

The dynamic market of consumer electronics is driving down the price of mobile devices so that schools and/or parents can more easily afford them for their students. More and more districts are purchasing tablets (i.e. iPads, Nexus, etc.) for some or all of the students at a particular school or grade level. In addition, schools are beginning to revise their district policies to enable students to "bring their own technology" (BYOT). In the 2011 Speak Up

Survey, which is conducted annually by Project Tomorrow, 62%ⁱ of Texas parents said that they would purchase a digital device for their child if the district would allow their child to use it at school. Attitudes and realities are quickly changing in districts across the state. The biggest barrier to moving Texas schools from print to digital, however, is providing enough broadband connectivity.

In addition to accessing the Internet at school, it is just as important for Texas students to be able to access the Internet outside of school. One of the advantages of providing access at home is to extend the learning time by enabling students to get homework help, access research materials, collaborate with others, develop multimedia projects, and even submit their homework assignment online. If the goal for schools is to take advantage of digital content, students need the ability to access these materials at home.

Recommendations:

Broadband needs vary depending on the number of concurrent network users, usage patterns, types of content, and traffic on the network backbone. There is no one-size-fits-all model because the needs vary from school to school and situation to situation. The State Educational Technology Directors Association (SETDA) recently published a report entitled “The Broadband Imperative: Recommendations to Address K-12 Education Infrastructure Needs” in which they outline steps that districts, states, and the federal government should implement to respond to the urgent need for a robust telecommunications infrastructure to meet the demands of schools and districts. To reach the goal of sufficient broadband access, SETDA recommends that schools and districts meet the following minimum bandwidth target between now and the 2017-18 school year.ⁱⁱ

Broadband Access for Teaching and Learning and School Operations	2014-15 School Year Target	2017-18 School Year Target
An external Internet connection to the Internet Service Provider (ISP)	At least 100 Mbps per 1,000 students/staff*	At least 1 Gbps per 1,000 students/staff*
Internal wide area network (WAN) connections from the district to each school and among schools within the district	At least 1 Gbps per 1,000 students/staff	At least 10 Gbps per 1,000 students/staff

*According to the national Broadband Map, Texas schools only have an average of 10-25 Mbps coming into their network.ⁱⁱⁱ

SETDA also recommends that the districts, states, and the federal government should work together to ensure that students have access to broadband connectivity outside of school. The preference is home access, but other solutions could include creating Internet hot spots in the community that students can easily access within their neighborhoods.

Telecommunications Discounts Provided to Texas Schools

E-Rate

The E-Rate program, officially known as Universal Service Schools and Libraries Discount Mechanism, was created as a part of the Telecommunications Act of 1996. In the act, a fourth Universal Service Fund program was established to help schools and libraries connect to the Internet.

The program's policies and rules are designed to promote competition between service providers and to give applicants the most cost effective means to connect to the Internet. \$2,338,786,000 was appropriated for the funding year 2012.

The discounts that pay for telecommunication services and Internet access have always been granted to eligible entities. However, this year schools requested \$2,444,087,362 which is more than was allocated for the year. The FCC had to roll forward unused funds in order to pay for the requested services. Texas should not rely on E-Rate funds to significantly decrease the cost for broadband. First, school districts do not receive the same discount percentage and second, there is no guarantee that in the future, E-Rate will have enough money to pay for the increased demand. The requests for discounts are rising significantly because districts are increasingly relying on the Internet connectivity to not only deliver instruction, but also run their day-to-day operations.

HB 2128 Discounts

House Bill 2128, the state telecommunications deregulation bill, was passed by the 74th Texas Legislature and enacted on September 1, 1995 as the Public Utility Regulatory Act of 1995. This bill provided discounts on telecommunication services to Texas schools, libraries, and hospitals. In 2010 it was determined that approximately 866 public entities are currently utilizing these discounts.^{iv} The entities pay 110% of the LRIC (Long-run incremental cost) which means that all the costs for the services, including the installation, are paid by the entities. According to a 2006 PUC report to the Texas Legislature, the value of the discounts was almost \$100 million annually^v. This has certainly increased substantially considering how the need for broadband access has exponentially grown since 2006. These discounts have been invaluable to help districts defray the cost of

connectivity. It has been estimated that, without these discounts, some entities would have their telecommunication costs triple or even quadruple.

Conclusion

The 82nd Legislature enacted SB 773, which extended the HB 2128 discounts until January 2016. It is TCEA's position that these discounts either should be permanent or the state should create another mechanism or method to provide the broadband that is recommended by SETDA. It is not optional. Districts will not be able to provide the type of educational experience that students need in the 21st century if districts cannot afford the amount of bandwidth that is needed. In 2012, we cannot imagine asking a student to sit in a classroom that only has a box fan to cool the room. However, every day we ask them to sit in a classroom that has almost the same type of connectivity that I had in my elementary classroom in the 1960s.

ⁱ 2011 Texas Parent Speak Up Survey, Project Tomorrow

ⁱⁱ Fox, C., Waters, J., Fletcher, G., & Levin, D. (2012). *The Broadband Imperative; Recommendations to Address K-12 Education Infrastructure Needs*. Washington, DC: State Educational Technology Directors Association (SETDA)

ⁱⁱⁱ National Broadband Map, <http://www.broadbandmap.gov/summarize/state/texas>

^{iv} PUC Sunset Staff Report, 2010.

^v 2006 Report to the 80th Legislature Evaluating a New Funding Mechanism for Distance Learning Discounts and Private Network Services for Certain Entities, Public Utility Commission of Texas, November 2006.